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Cover: Immature male Bullock's Oriole (*Icterus bullockii*). Harford County, Maryland, 20 February 2013. Photographed by Jean Kirkwood.



## FIRST RECORD OF BULLOCK'S ORIOLE FOR HARFORD COUNTY, MARYLAND

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The winter of 2012-13 proved to be an exciting one for birders in Maryland and throughout the mid-Atlantic region as an invasion of northern irruptive species occurred. Red-breasted Nuthatch (*Sitta canadensis*), Pine Siskin (*Spinus pinus*), Evening Grosbeak (*Coccothraustes vespertinus*), Purple Finch (*Haemorhous purpureus*), and both Red and White-winged Crossbill (*Loxia curvirostra* and *L. leucoptera*, respectively) flocks made everyone pay more attention to their backyard feeders.

On Monday, 11 February 2013 at approximately 11:00 a.m. EST, I noticed a yellow and black bird at my platform feeder on Bradenbaugh Road in northwestern Harford County. Given the irruptive season we were experiencing, my first thought was Evening Grosbeak as the bird was bigger than the finches and sparrows that typically frequented the feeder. Even though I did not have binoculars handy, I was able to get closer to the feeder and quickly revised my identification to some type of oriole. I noticed the black bib on the bird and then it flew away.



Figure 1. Immature male Bullock's Oriole (*Icterus bullockii*). Harford County, Maryland, 20 February 2013. Photographed by Jean Kirkwood.

Quickly consulting three field guides and getting my binoculars and camera ready, I waited for the bird to return, which it did in about 15 minutes. After taking a few poor quality pictures, I decided to study the bird with binoculars, this time indoors through a window while about 9 m away from the feeder. The bird showed two large wing-bars intersected by black "teeth," the black bib, and a whitish color to the belly. It also showed a distinct black spot at the base of the lower mandible. I concluded that the bird was a first-year male Bullock's Oriole (*Icterus bullockii*) (Figure 1).

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Wanting further verification, I called Matt Hafner who was able to have his wife, Dr. Kim Hafner, come over to obtain some clearer pictures and email them to him. Matt was able to verify the identification and shared the pictures with several others who also reached the same conclusion. Fortunately the bird visited for the rest of the afternoon and about 15 people were able to come and observe and photograph the bird.

Our feeder set-up consists of one 30.5-cm<sup>2</sup> platform feeder with both white millet and black-oil sunflower seeds; one hanging suet feeder; one hanging nyger seed tube; and one hanging sunflower seed tube. The feeders are outside the sliding doors of our living room in an alcove that shelters them from our driveway. A multi-trunk white birch (*Betula* sp.) and two small rhododendrons (*Rhododendron* sp.) are surrounded by eastern white pines (*Pinus strobus*) (height = 18 m) and a privet (*Ligustrum* sp.) hedge (height = 3 m). The oriole was most consistently using the platform feeder, eating the millet and avoiding the sunflower seeds, and increasingly favoring the suet feeder. One attempt to provide orange slices was ignored by the oriole.

My wife, Jean Kirkwood, realized that she had briefly seen the oriole on Sunday, 10 February 2013, one day before my discovery, and our last sighting was on Sunday, 17 March 2013. The bird would appear most days in the morning from 7:30 a.m. and feed for 5-10 minutes before flying off. Its frequency of feeding varied greatly from day to day, sometimes at 30-minutes intervals, and at other times, one visit for the entire day. This raised the question of where it was spending the rest of its time.

This mystery was solved when a neighbor, Loretta McGraw, who lived 1 km away, stopped by with pictures of the Bullock's Oriole at her feeder. She had dated photographs from 8 January through 26 April 2013. She reported that the bird used many feeders on different sides of her house and would also disappear into the shrubbery, apparently feeding on the mulched ground. She also has a large grove of white pine along the edge of her yard that the bird seemed to frequent.

According to Phil Davis (Secretary) and Matt Hafner (Member) of the Maryland/District of Columbia Records Committee (MD/DCRC), this is the third documented sighting of Bullock's Oriole for the state and the first for Harford County. This was the first time pictures were taken documenting the species in Maryland and the first time at a feeder where birders could have a reasonable chance of seeing the bird. Over the course of the 36 days it visited my feeder, approximately 175 people came to see the bird and the vast majority was successful. The two other accepted records were an adult in female-type plumage on 25 September 1994 at Blackwater National Wildlife Refuge (Dorchester County) and a male in basic plumage on 24 November 2009 at Sycamore Landing, Chesapeake & Ohio Canal National Historic Park (Montgomery County). Three other sightings were not accepted by the MD/DCRC and three additional sightings are in the review process (MD/DCRC 2013).

In addition to this Maryland bird (Adams et al. 2013), the winter of 2012-13 also recorded the species in Massachusetts (Hunt 2013), Connecticut (Hunt 2013), Pennsylvania (Fazio and Johnson 2013), North Carolina (Blankenship et al. 2013), Georgia (GCRC 2013), and Florida (Anderson 2013). The North Carolina bird was a reoccurring observation for the second year (Blankenship et al. 2013), and the Pennsylvania bird was for the third straight year (Fazio and Johnson 2013).

Addendum: In late fall 2013, a mature male Bullock's Oriole (Figure 2) was noted at my feeder on 8 December. It was presumed to be the same bird that spent the late winter in 2013. The neighbor who shared it during the 2013 winter first observed the mature male on 26 November 2013. It was very sporadic in its appearances during this time and was last seen on 5 February 2014 by Loretta McGraw at her house.



Figure 2. Adult male Bullock's Oriole. Harford County, Maryland, 23 December 2013. Photographed by Jean Kirkwood.

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# EARLY GATHERING OF NEST MATERIAL BY AMERICAN GOLDFINCH

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## ABSTRACT

Numerous studies report American Goldfinches (*Spinus tristis*) in the mid-Atlantic Coastal Plain initiate nesting in June with maturation of regional Asteraceae thistles, and use spider and caterpillar web threads to bind various nest materials. We observed a female goldfinch gathering web from Eastern Tent Caterpillar Moth (*Malacosoma americanum*) larvae on 21 April 2012. Non-native, earlier-blooming thistle, warming climate, and availability of nyjer seed in popular backyard feeders may be factors contributing to earlier goldfinch nesting activity.

**Keywords:** climate warming, goldfinch, nyjer seed, thistles, web gathering

Authors generally attribute the annual start of nesting activity by the American Goldfinch (*Spinus tristis*) to coincide with maturation of Asteraceae thistles from which they use pappus (silky/feathery filaments of the modified calyx) as an important nest material and the seeds provide nestling food (Stokes 1950, Holcomb 1969, Lynch 1970, McGraw and Middleton 2009). Radford et al. (1968), and Brown and Brown (1984) indicate nearly all frequently occurring thistle species (*Cirsium* and *Centaurea* spp.) on the Coastal Plain do not bloom before late June, thus commencement of goldfinch nesting would be delayed until that time or when the first pappus appeared a few weeks later.

Mid-Atlantic Breeding Bird Atlases and regional bird books referencing Pennsylvania through North Carolina report a few American Goldfinches might initiate nest building earlier than mid-June, but nearly all first reported incidences occur in early July with maturity of thistles (Stewart and Robbins 1958, Potter et al. 1980, Santner 1992, Hess et al. 2000, Walsh et al. 1999, Rottenborn and Brinkley 2007, Ellison 2010).

Ellison (2010) noted an 8.7% shift toward June initiation of goldfinch nests during the 2002-2006 Maryland Breeding Bird Atlas. Possibly introduction and/or spread of non-native, earlier-blooming thistle species, recent years of warming and/or drier climate, and popularity of backyard feeders offering nyjer seed may all contribute to earlier nest activity.

In the Maryland Coastal Plain, on the unusually early date of 21 April 2012, K. Harris, W. Harris, and Poet observed and photographed an American Goldfinch collecting nest material at Adkins Arboretum near the town of Ridgely, Caroline County, Maryland. Presented here are our observations and comments related to this early occurrence.

## METHODS

These three recreational bird observers made the goldfinch sighting while walking along designated trails at the Adkins Arboretum at about 8:50 a.m. with clear sky, 22°C and no discernible wind. We first spotted a male and female American Goldfinch perched near the top of a small black cherry (*Prunus serotina*) infested in one of the uppermost forks with webbing from Eastern Tent Caterpillar Moth (*Malacosoma americanum*) larvae. The yellow and black-winged male was positioned about 0.5 m above the drab female perched directly adjacent to the widest portion of the tent webbing about 6 m high in the tree. Poet later photographed the goldfinch activity with a hand-held, Nikon D5100 Digital SLR Camera in an Auto mode, zoomed to 300 mm magnification.

## RESULTS

We first assumed the goldfinches were consuming the Eastern Tent Caterpillar Moth larvae whose webbing densely infested the tree; however upon closer inspection we ascertained the female goldfinch was collecting strands of tent webbing into and around her bill while the male watched. Figure 1 shows the female with the gathered strands of webbing within and on the bill. We watched this collecting behavior for 5-8 minutes before both birds took flight and departed our viewing area.

## DISCUSSION

Many authors (Bent and Collaborators 1968, Baicich and Harrison 1997, McGraw and Middleton 2009) have cited goldfinch use of spider and caterpillar web threads for binding lichens, bark, grasses and other nest materials together, thus this behavior is not unusual. However, the date of nest material gathering is unusual since it comes nearly 60 days earlier than documented historical goldfinch nest building on the Mid-Atlantic Coastal Plain and 19 days before single May occurrences in New York City (Künstler 1994) and Maryland (Ellison

2010). Non-native, earlier-blooming thistle, warming climate, and nyjer seed available at backyard feeders (Ellison 2010) may be factors contributing to unusually early goldfinch nesting activity.

The most frequently occurring species of common and star thistles in the region of our observation are Canada, bull, and field thistle (*Cirsium arvense*, *C. vulgare*, *C. discolor*), and garden cornflower



Figure 1. Female American Goldfinch (*Spinus tristis*) collecting webbing from an Eastern Tent Caterpillar Moth (*Malacosoma americanum*) tent. Adkins Arboretum, near Ridgely, Caroline County, Maryland, 21 April 2012. Photographed by Daniel E. Poet.

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and spotted knapweed (*Centaurea cyanus*, *C. stoebe*) (Phillips 1978, Brown and Brown 1984, Kaufman and Kaufman 2007, pers. observations). These sources indicate initial flowering in July or August for native field thistle, June or August for naturalized bull thistle, June for introduced Canada thistle and spotted knapweed, and May for introduced garden cornflower. This suggests that over the past several decades, as the earlier blooming naturalized and introduced thistles have increased their numbers and range, the availability of pappus and thistle seeds may have also enabled earlier initiation of goldfinch nesting activities than during historical periods. Earlier blooming may be further enhanced by annually warming climate (Wolkovich et al. 2012) such as experienced in 2012. During the 81 days prior (1 February) to our observation the ambient temperatures ranged above the USDA-NRCS (2002) historical monthly highs on 53% of the days; there was 11.9 cm of precipitation compared with the 22.6 cm average in 1961–1985; there was no measurable precipitation 36 days prior to the event; and numerous species of local plants appeared to bloom weeks earlier than usual. The tiny, linear shape of nyjer has the appearance of thistle seed while being of greater nutritional content, thus is a strong attractant for goldfinches. Advent and marketing of the vertical, clear plastic, tube-feeder designed specifically to attract goldfinches to its nyjer content has made the seed a multi-million dollar commodity in recent years (Wild Bird Feeding Industry 2012) while tube-feeder marketing has targeted the summer-season when the finches have a bright yellow plumage. Abundant availability of nyjer all months of the year, particularly during the warm months, may also contribute to earlier goldfinch nesting activity.

Unusually early nesting activity by the American Goldfinch warrants future attention to timing of nest material gathering, nest building, egg-laying, and reproductive success in view of abundant introduced thistles, warming climate, and availability of nyjer seed.

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# RECOVERY OF BREEDING BALD EAGLES ON ABERDEEN PROVING GROUND, MARYLAND

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## ABSTRACT

We conducted annual aerial surveys (1991-2011) for breeding Bald Eagles (*Haliaeetus leucocephalus*) within Aberdeen Proving Ground (APG), a 350-km<sup>2</sup> military installation located along the northwestern shoreline of the upper Chesapeake Bay in Maryland. The population increased exponentially from 1 pair in 1977 to 58 pairs in 2011 with an average doubling time of 5.8 years. This rate was higher than that documented for the broader Chesapeake Bay and is comparable to the highest reported throughout the species range. Annual population increase was highly variable and exhibited no indication of any systematic decline. A total of 646 chicks were produced from 464 breeding attempts during this period. The population has exhibited tremendous forward momentum such that more than 50% of young produced over the 21-year period were produced in the last 6 years. Average success rate was high (79.8%) and reproductive rates exceeded conservation targets in nearly all years. Due to the expansion of urban development throughout the Chesapeake Bay watershed, APG plays an increasingly important role in the recovery and maintenance of the Chesapeake Bay Bald Eagle population.

**Keywords:** Bald Eagle, *Haliaeetus leucocephalus*, breeding, Aberdeen Proving Ground, recovery, Department of Defense

Bald Eagles (*Haliaeetus leucocephalus*) have likely bred on the land currently occupied by Aberdeen Proving Ground (APG) for thousands of years. However, no assessment of the population is available prior to the 1930s when the National Audubon Society commissioned a survey of a portion of the Chesapeake Bay that included APG (Tyrrell 1936). In 1936, Tyrrell documented nests on Eagle Point, Robbins Point, lower Little Romney Creek (north of Elm Tree Point), upper Little Romney Creek (near intersection with A-A5 road), and Bear Point. Stewart and Robbins (1958) documented nests on APG in the 1950s. Abbott (unpublished field notes) coordinated Bald Eagle nest surveys from the late 1950s through the mid-1970s and documented additional nests at the mouth of Canal Creek, Reardon Inlet (near Westwood Range), Maxwell Point, Swaderick Creek, Leges Point (near Days Point), north

of Ricketts Point, Gum Point, Skippers Point (on Lauderick Creek), Coopers Creek, Back Creek (near AA-5 road), and three on Spesutie Island (near Locust Point; near Morgan Road; near Sandy Point). Only four of these historic breeding sites had evidence of Bald Eagle use when investigated during the early 1960s (Abbott, unpublished data). By the late 1960s, no occupied Bald Eagle territories were identified for APG.

Following the first rediscovered breeding of Bald Eagles on APG in 1977, the Directorate of Safety, Health and Environment contacted the United States Fish and Wildlife Service to initiate consultation under the Endangered Species Act, Section 7(c)(1). This consultation resulted in studies that lead to the first Bald Eagle management plan in 1986 and subsequent revisions in 1995 and 2009 (Paul 2009). These plans established the need and framework for annual monitoring of the breeding population. Here we provide the results of survey efforts (1991-2011) and discuss changes in the population relative to the breeding population within the tidal reach of the Chesapeake Bay.

## STUDY AREA

APG is a 350-km<sup>2</sup> United States Department of Defense military installation located along the northwestern shore of the upper Chesapeake Bay, in southern Harford and eastern Baltimore Counties, Maryland (Figure 1). Since APG's establishment in 1917, the Aberdeen Area has been the site of intensive research and development; large-scale testing of munitions, weapons, and materiel; and a training school for ordnance officers and enlisted specialists. Due to the nature of its mission, APG is primarily forested and has extensive undeveloped shorelines. The property is embedded within the Upper Chesapeake Bay Bald Eagle Concentration Area, one of several areas within the Chesapeake Bay where Bald Eagles from along the Atlantic Coast converge (Watts et al. 2007). Throughout the Bay such concentration areas have formed within low salinity, tidal-fresh waters where prey availability is high (Watts et al. 2006). For the resident breeding population, brood provisioning and chick growth tend to be high in these areas (Markham and Watts 2008) leading to high breeding densities, high breeding success, and high productivity (Watts et al. 2006).

## METHODS

Aerial helicopter surveys have been used to survey the entire study area for breeding eagles (1991-2011). Typically four to six surveys have been conducted between mid-January and late May to document nests, breeding activity, and productivity. Detected nests were plotted on topographic maps and given unique codes as names. Each nest was examined to determine its condition and status. Notes from field observations were interpreted by the authors to determine activity status according to national standards. We considered a breeding territory to be occupied if a pair of birds were observed in association with the nest and there was evidence of recent nest maintenance (e.g., well-formed cup, fresh lining, structural maintenance). We considered nests to be active if we observed a bird in an incubating posture or if we detected eggs or young in the nest (Postupalsky 1974). The number of eaglets was recorded for each nest. Due to the number of flights, we have confidence that nesting activity was well documented.

We defined breeding success as the percentage of occupied nests that contained  $\geq 1$  young, reproductive rate as the number of young per occupied nest, and average brood size as the number of young per successful nest. We expressed population growth rate using the

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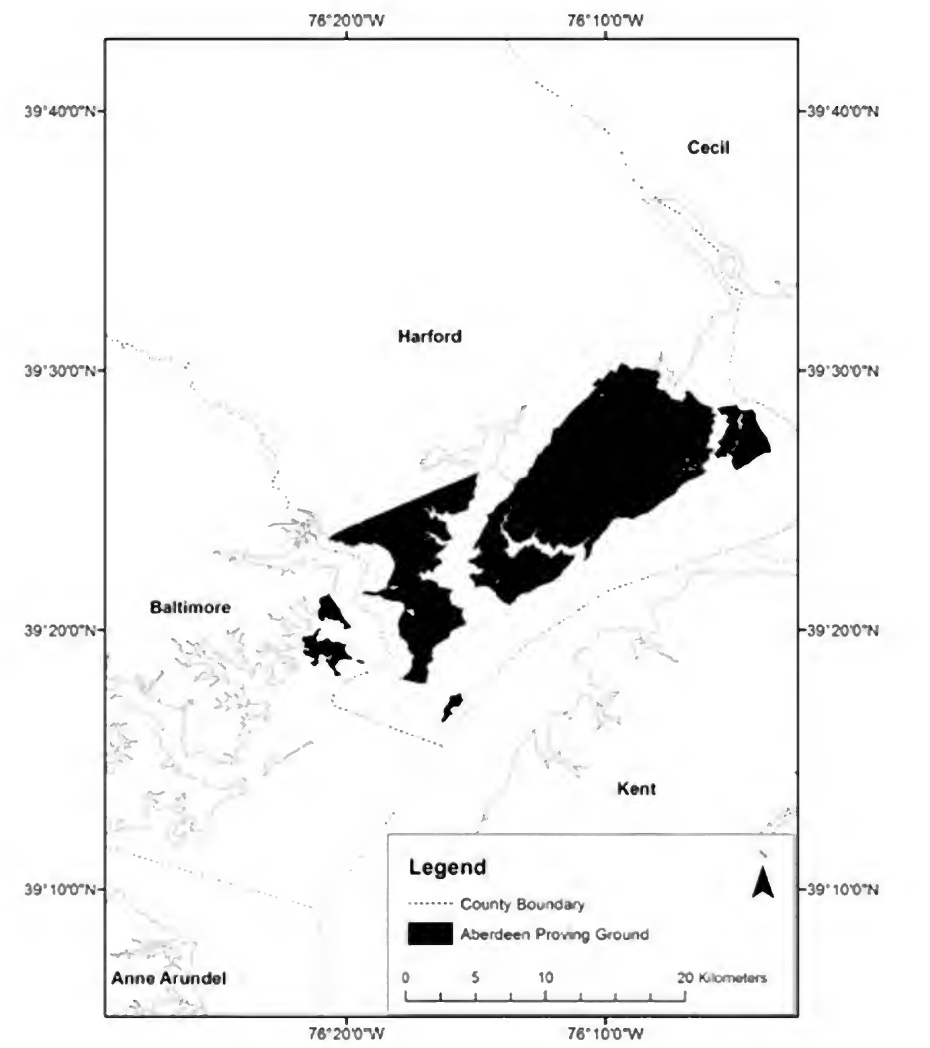


Figure 1. Aberdeen Proving Ground, Baltimore and Harford Counties, Maryland.

average time (in years) required for the population to double in size ( $t_{\text{double}}$ ), the intrinsic rate of increase ( $r$ ), and the average annual percent increase over the study period. We calculated average doubling time using the growth equation  $N_t = N_0 e^{rt}$ , where  $N_t$  is the population size in 2011,  $N_0$  is the population size in 1977,  $e$  is the base of the natural logarithm,  $r$  is the intrinsic rate of increase, and  $t$  is the time interval between population estimates. With this configuration,  $t_{\text{double}} = \ln(2)/r$ . We calculated average annual percent increase as  $(N_{t+1} - N_t)/N_t \times 100$ .

## RESULTS

Between 1977 and 2011, the Bald Eagle breeding population on APG increased from 1 pair to 58 pairs. During this period, the population grew exponentially with an average doubling time of 5.8 years. Intrinsic rate of increase ( $r$ ) was 0.119. Average annual increase was  $13.1 \pm 4.23\%$  (mean  $\pm$  S.E.). The annual population increase, as expressed by a percentage, was highly variable over the study period and ranged from a low of -20.6% (2005-2006) to a high of 57.9% (1998-1999). There is no indication over the survey period that this rate has shown any directional change ( $R^2 = 0.042$ ,  $F[1,17] = 0.75$ ,  $p = 0.395$ ).

During the study period, we documented 464 breeding attempts (i.e., active nests) that produced 646 young (Table 1). Average annualized rates were  $79.8 \pm 3.48\%$ ,  $1.39 \pm 0.06\%$ , and  $1.6 \pm 0.05\%$  for breeding success, reproductive rate, and brood size, respectively. The population has exhibited tremendous forward momentum such that more than 50% of young produced over the 21-year period have been produced in the 6 years since 2005.

Survey information between 1991 and 2011 indicates that the breeding population on APG has exceeded the goal of 1.1 chicks/breeding attempt set by the Chesapeake Bay Bald Eagle Recovery Plan (Byrd et al. 1990) every year except 1997 and 1998 (Table 1). During 1997 and 1998, recorded reproductive rate was higher than that suggested for maintenance but lower than the recovery goal. For the 11-year period 1991-2001, reproductive rates for APG were virtually identical to those recorded for the broader Chesapeake Bay. The average number of chicks per active nest was  $1.4 \pm 0.05$  (mean  $\pm$  S.E.) and  $1.4 \pm 0.09$  for the Chesapeake Bay and APG respectively. The average number of chicks per successful nest (average brood size) was  $1.8 \pm 0.03$  and  $1.6 \pm 0.05$  for the Chesapeake Bay and APG respectively. These rates are not statistically distinguishable (for both comparisons,  $df = 19$ ,  $F$ -statistic  $< 3.2$ ,  $P > 0.05$ ).

## DISCUSSION

The recovery of the Bald Eagle breeding population on APG has been dramatic. Population growth rate has been faster (doubling time of 5.8 vs 8.2 years) than that documented for the tidal reach of the larger Chesapeake Bay (Watts et al. 2008). The rate is comparable to other low-salinity reaches of the Bay that represent some of the fastest growing regions throughout the species range (Watts et al. 2006). With the exception of locations that have been developed, virtually all of the breeding territories documented during the 1930s, 1940s and 1950s have now been re-occupied. No specific estimates of the APG Bald Eagle population are available prior to the onset of the DDT era. However, given the tremendous forward momentum currently exhibited by the breeding population, it seems likely that Bald Eagles will reach nesting carrying capacity within the installation in a relatively short period of time.

(continued)

**TABLE 1. BALD EAGLE POPULATION SIZE AND PRODUCTIVITY WITHIN ABERDEEN PROVING GROUND, MARYLAND (1991-2011).**

*(Note: The 1998 survey was incomplete. Occupied Nest = pair of birds and evidence of recent nest maintenance; Active Nest = eggs or young in the nest; Successful Nest = number of nests that produced at least one young; Successful Nest/Occupied Nest = breeding success; Young/Occupied Nest = reproductive rate; Young/Successful Nest = average brood size.)*

Year	Occupied Nests	Active Nests	Successful Nests	Young	Successful /Occupied <sup>a</sup>	Successful /Active <sup>a</sup>	Young /Occupied <sup>a</sup>	Young /Active <sup>a</sup>	Young /Successful <sup>a</sup>
1991	5	5	4 <sup>b</sup>	5	100	100	1.25	1.25	1.25
1992	5	5	4	8	80	80	1.6	1.6	2
1993	9	8	7	11	77.8	87.5	1.22	1.38	1.57
1994	10	9	7	10	70	77.8	1	1.11	1.43
1995	13	13	10 <sup>d</sup>	18	100	100	1.8	1.8	1.8
1996	16	16	14 <sup>b</sup>	23	93.3	93.3	1.53	1.53	1.64
1997	16	13	5 <sup>c</sup>	9	35.7	45.5	0.64	0.82	1.8
1998	8	8	5	6	71.4	71.4	0.86	0.86	1.2
1999	19	19	11 <sup>c</sup>	20	64.7	64.7	1.18	1.18	1.82
2000	19	13	10	18	52.6	76.9	0.95	1.38	1.8
2001	20	20	19	32	95	95	1.6	1.6	1.68
2002	19	18	12 <sup>d</sup>	20	80	85.7	1.33	1.43	1.67
2003	24	23	23	35	95.8	100	1.46	1.52	1.52
2004	29	27	22	32	75.9	81.5	1.1	1.19	1.45
2005	35	35	29	41	82.9	82.9	1.17	1.17	1.41
2006	29	29	28 <sup>b</sup>	41	100	100	1.46	1.46	1.46
2007	31	31	27	42	87.1	87.1	1.35	1.35	1.56
2008	44	37	33	61	75	89.2	1.39	1.65	1.85
2009	46	37	35	69	76.1	94.6	1.5	1.86	1.97
2010	44	41	36	60	81.8	87.8	1.36	1.46	1.67
2011	58	57	45 <sup>c</sup>	85	80.4	81.8	1.52	1.55	1.98
TOTAL	499	464	386	646	—	—	—	—	—
AVERAGE	—	—	—	—	79.8 ± 3.48	84.7 ± 13.4	1.39 ± 0.06	1.38 ± 0.27	1.60 ± 0.05

<sup>a</sup> Based on nests with known outcome  
<sup>b</sup> Final outcome of 1 nest not determined and not included in totals  
<sup>c</sup> Final outcome of 2 nests not determined and not included in totals  
<sup>d</sup> Final outcome of <5 nests not determined and not included in totals

A reproductive rate of 0.7 chicks/breeding attempt has been suggested to represent the threshold for population maintenance for Bald Eagles (Sprunt et al. 1973). Buehler et al. (1991a) estimated that 1.0 chicks/successful nest (equivalent to brood size) was required for sustaining breeding populations in the Bay. A reproductive rate of 1.1 chicks/breeding attempt was set as the recovery goal for the Chesapeake Bay population (Byrd et al. 1990). With the exception of 1997 and 1998, the APG population has met or exceeded the productivity target outlined in the recovery plan in every year that a survey has been conducted. The broader Chesapeake Bay reached this threshold in 1985 and has exceeded the target in all subsequent years (Watts et al. 2008). The reproductive rate documented by Tyrrell in 1936 was nearly 1.5 chicks/breeding attempt. The APG population has approached or achieved this rate in the years after 2005.

APG plays an increasingly important role in the recovery and maintenance of the Chesapeake Bay Bald Eagle population. The availability of mature trees suitable for nesting within 1 km of water has become the dominant limiting factor for Bald Eagles in the region. Human activity is the best predictor of eagle distribution within the tidal portion of the Bay. Indicators of human activity such as housing and road density, shoreline use, and boating activity have been related to nest distribution (Watts et al. 1994), shoreline use (Buehler et al. 1991b, Watts and Whalen 1997), and the likelihood of nest abandonment (Therres et al. 1993) or recolonization (B. D. Watts, Center for Conservation Biology, unpublished data). Since Bald Eagles began their most dramatic decline in the 1950s, the human population within the tidal reach of the Bay has increased by more than 50% (United States Department of Commerce 2010). A preliminary review of development occurring around eagle nests in the lower Chesapeake Bay shows that development had occurred in 55% of shoreline areas by the late 1980s (Byrd et al. 1990). Extensive undeveloped shorelines and associated uplands on APG have allowed the property to become a significant stronghold for the breeding population.

APG will continue to serve as an important Bald Eagle breeding location for the foreseeable future. APG has been actively working to restore the Bald Eagle population within the installation since the early 1980s. The Army has adopted environmental stewardship as one of its missions and it is clear that without federal ownership of this land and the demand for the ongoing mission, the upper Bay would support considerably less habitat for breeding eagles. The current Bald Eagle management plan (Paul 2009) provides broad directives to protect significant eagle habitat and outlines specific measures to reduce disturbance within known nesting, foraging, and roosting sites. Management efforts continue that are designed to mesh the needs of eagles with other military missions.

## ACKNOWLEDGMENTS

The United States Army has supported breeding population surveys since the 1980s. We thank the long list of observers who have participated in surveys including Craig A. Koppie, Joseph P. Ondek, Samuel T. Voss, and Jessica Baylor. We also thank the many individuals who have managed the survey data over time including Amy Deel and Lynda Hartzell. Glenn D. Therres and Craig A. Koppie have contributed to shaping the survey.

*(continued)*



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## 2013 MARYLAND MAY COUNT

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The annual May Count was held on Saturday, 11 May 2013. Results were submitted from 14 of Maryland's 23 counties, continuing a declining trend in participation over the last decade. Ten years earlier, 22 counties reported results.

Weather statewide on the count day was unsettled, with most compilers reporting significant rain in part of the day. Temperatures were generally mild, ranging from the low 60s to about 80 degrees.

A total of 304 counters in 188 parties turned up 231 species and 95,893 individual birds. Among the most unusual sightings were: a Red-throated Loon in the Monocacy River in Frederick; a Sandhill Crane at the Mt. Nebo Wildlife Management Area in Garrett; a Glaucous Gull at Hooper's Island in Dorchester; and a Common Redpoll at a feeder in Garrett. Late stragglers included 5 Black Scoters in St. Mary's, a Common Goldeneye in Talbot, a Horned Grebe in Prince George's, and a Northern Gannet in Somerset.

A comparison of this data set with that of 2003 is in accord with known trends for many species. Overall, the number of individuals was 63% of the 2003 total. The number of counties participating was 64% of 2003 counties, while the effort in terms of miles covered was 70% of 2003 values.

The absolute numbers in 2013 were up substantially over those for 2003 for a number of species and they are listed accordingly. Group A are species with known long term population growth. Group B are species that were unusually abundant in the state in the winter and spring of 2013. Group C are species for which this compiler cannot give a reason for the increase, which may not be indicative of long-term trends. The percentage increase from 2003 to 2013 is shown in parenthesis.

Group A: Wild Turkey (157%); Black Vulture (56%); Bald Eagle (98%); Red-shouldered Hawk (41%); Carolina Wren (107%)

Group B: Red-breasted Nuthatch (340%); Pine Siskin (805%)

Group C: Ruddy Duck (546%); Glossy Ibis (443%); Black-bellied Plover (844%); Semipalmated Sandpiper (119%)

A number of other species had higher counts in 2013, but the numbers were too small to characterize.

The count totals were substantially lower in 2013 as compared with 2003 for many species, even correcting for the relative effort of the two years. Many Neotropical migrants were down, but this may be primarily a function of weather conditions. Species that had the largest percentage declines (lower than 20% of 2013 total compared to the 2003 total) include: Mute Swan (3% — no surprise here); Green-winged Teal (8%); Least Bittern (17%); Snowy Egret (17%); Short-billed Dowitcher (17%); Bonaparte's Gull (14%); Royal Tern (16%); Black-

billed Cuckoo (13%); Veery (16%); Golden-winged Warbler (5% — from 20 in 2003 to 1 in 2013); and Blackpoll Warbler (16%). Again this data set alone is too small to make definitive statements about population trends for most of these species, however, breeding bird survey data shows major declines for Black-billed Cuckoo and Golden-winged Warbler.

Species seen in 2013 but not 2003 include: Common Goldeneye; Northern Gannet; Sandhill Crane; Glaucous Gull; Winter Wren; and Common Redpoll.

Species seen in 2003 but not 2013 include: Snow Goose; Tundra Swan; American Wigeon; Northern Pintail; Canvasback; Greater Scaup; Surf Scoter; Long-tailed Duck; Ring-necked Pheasant; Red-necked Grebe; Northern Goshawk; American Golden-Plover; Upland Sandpiper; Stilt Sandpiper; White-rumped Sandpiper; Western Sandpiper; Red-necked Phalarope; Lesser Black-backed Gull; Peregrine Falcon; Olive-sided Flycatcher; Yellow-bellied Flycatcher; Alder Flycatcher; Philadelphia Vireo; Sedge Wren; and Bicknell's Thrush. All but two of these were recorded in 2003 in counties that also conducted 2013 counts. The two exceptions were Western Sandpiper and Lesser Black-backed Gull, both found in Baltimore County in 2003, but where no count was conducted in 2013.

Many thanks to all the participants and compilers. I look forward to the 2014 count (10 May 2014) and hope that more counties participate. As I tell the Frederick Bird Club, it is the best day of the year to be out counting birds!

*May Count Compilers and County Codes:*

Garrett (GA): Connie Skipper  
Allegany (AL): J.B. Churchill  
Frederick (FR): Michael Welch  
Howard (HO): Kevin Heffernan  
Prince George's (PG): Fred Fallon  
Anne Arundel (AA): Dotty Mumford  
Charles (CH): George Jett  
St. Mary's (SM): Patty Craig  
Harford (HA): Rick Cheicante  
Talbot (TA): Les Coble  
Dorchester (DO): Harry Armistead  
Caroline (CN): Debby Bennett  
Wicomico (WI): Ellen Lawler  
Somerset (SO): Paul Bystrak

	<u>GA</u>	<u>AL</u>	<u>FR</u>	<u>HO</u>	<u>PG</u>	<u>AA</u>	<u>CH</u>
Canada Goose	200	53	254	580	658	455	275
Mute Swan			1				
Tundra Swan							
Wood Duck	21		14	24	71	29	15
Gadwall							
American Wigeon							
American Black Duck					2		
Mallard	67	28	80	71	111	97	57
Blue-winged teal	5				2		
Northern Shoveler					1		
Northern Pintail							
Green-winged Teal						1	
Canvasback							
Redhead							
Ring-necked Duck				1			1
Greater Scaup							
Lesser Scaup	1				2	1	
Surf Scoter							
White-winged Scoter							
Black Scoter							
Long-tailed Duck							
Bufflehead			1				
Common Goldeneye							
Hooded Merganser			8				
Common Merganser	17	6				3	
Red-breasted Merganser	7	1					4
Ruddy Duck	14			3		30	1
Northern Bobwhite							1
Ring-necked Pheasant							
Ruffed Grouse	13	1					
Wild Turkey	35	4	3	5	15	5	13
Red-throated Loon			1				
Common Loon	16	7	1	4	7	5	1
Pied-billed Grebe		1		3	1		1
Horned Grebe					1		
Red-necked Grebe							
Northern Gannet							
Double-crested Cormorant	23	5	4	21	68	271	188
Great Cormorant							
Brown Pelican							
American Bittern				1			
Least Bittern							
Great Blue Heron	1	1	36	46	66	133	41
Great Egret			4	2	2	11	4
Snowy Egret					1	4	
Little Blue Heron						2	
Tricolored Heron							
Cattle Egret				1		8	
Green Heron	4	3	14	31	29	10	7
Black-crowned Night-Heron			5	3		2	

<u>SM</u>	<u>HA</u>	<u>TA</u>	<u>DO</u>	<u>CN</u>	<u>WI</u>	<u>SO</u>	<u>Total</u>
134	317	10	127	134	54	20	3,271
8							9
							0
12	54	10	24	21	4		299
			2				2
							0
	6		32		2	12	54
6	29	22	99	50	13	3	733
			2				9
							1
							0
			2				3
							0
							0
							2
							0
		4					8
							0
5							0
							5
							0
							1
		1					1
			5				13
	1						27
							0
2		1					15
3	10	1	578				640
		2	4	3	2		12
							0
							14
3	58	6	41	48	2	1	239
							1
6	2		16				65
							6
							1
							0
							1
729	638	1,050	114	11	2	1	3,132
						8	0
43							43
							2
	1						1
	1						668
43	129	19	95	39	13	6	105
2	3	6	64		1	6	46
3	2	2	18	2		14	
							4
1			1				9
			8			1	14
1		4					123
5	11	1	3	3	2		11
			1				

(continued)

	<u>GA</u>	<u>AL</u>	<u>FR</u>	<u>HO</u>	<u>PG</u>	<u>AA</u>	<u>CH</u>
Yellow-crowned Night-Heron					1	1	
Glossy Ibis			1			1	
Black Vulture	5		50	79	218	40	75
Turkey Vulture	48	19	91	146	97	379	124
Osprey	4	2	5	11	61	79	241
Bald Eagle	4			7	27	31	44
Northern Harrier			1	2	4	5	
Sharp-shinned Hawk				1		11	1
Cooper's Hawk			2	7	2	9	1
Northern Goshawk							
Red-shouldered Hawk	2		11	61	34	12	9
Broad-winged Hawk	9			4	1	107	
Red-tailed Hawk	10	5	25	23	19	30	10
Black Rail							
Clapper Rail							
King Rail					1		
Virginia Rail				1			
Sora				4		1	1
Common Gallinule							
American Coot			1	1			
Sandhill Crane	1						
Black-necked Stilt							1
American Avocet							
American Oystercatcher							
Black-bellied Plover							
American Golden-Plover							
Wilson's Plover							
Semipalmated Plover			1	2	1	4	1
Piping Plover							
Killdeer	24	29	24	24	20	31	31
Spotted Sandpiper	21	11	14	46	33	31	25
Solitary Sandpiper	9	1	21	67	30	11	19
Greater Yellowlegs	11		1	3	13	4	3
Willet							
Lesser Yellowlegs	13		3	4	24		11
Upland Sandpiper							
Marbled Godwit							
Ruddy Turnstone							
Red Knot							
Stilt Sandpiper							
Sanderling							
Dunlin					1	2	
Least Sandpiper	12	1	31	53	22	27	16
White-rumped Sandpiper							
Pectoral Sandpiper			1		1		
Semipalmated Sandpiper	1			10			1
Western Sandpiper							
Short-billed Dowitcher							
Wilson's Snipe				5	2		5
American Woodcock	3						

<u>SM</u>	<u>HA</u>	<u>TA</u>	<u>DO</u>	<u>CN</u>	<u>WI</u>	<u>SO</u>	<u>Total</u>
							2
18	8		7	2		1	38
18	36	6	36	36			599
82	103	27	151	133	30	9	1,439
138	38	61	143	37	19	3	842
13	65	7	105	14	3	6	326
2	2		3	1		1	21
1	1			1			16
1		1		4	1		28
							0
12	6	2	1	5	2		157
							121
5	10	1	29	13	7	1	188
							0
4			47			16	67
	3		9			2	15
			37			8	46
2	1		1				10
	1		3				4
	1		1				4
			1				1
							2
							0
		3					3
1			18			151	170
							0
							0
9	4	9	105	2		4	142
							0
29	33	11	20	25	3		304
23	15		27	11	2		259
12	17	1				1	189
3	5	4	27	18	1	8	101
			28			25	53
2	9	2	14	12		3	97
							0
							0
			1				1
							0
							0
			4				4
			80			130	213
47	27	5	58	14		2	315
							0
			3				5
26		6	9			296	349
							0
	2		1				3
	4			4			20
2	7			1			13

(continued)

	<u>GA</u>	<u>AL</u>	<u>FR</u>	<u>HO</u>	<u>PG</u>	<u>AA</u>	<u>CH</u>
Wilson's Phalarope							
Red-necked Phalarope							
Bonaparte's Gull	1					6	3
Laughing Gull					407	14	11
Ring-billed Gull	1				19	275	64
Herring Gull					52	43	94
Iceland Gull							
Lesser Black-backed Gull							
Glaucous Gull							
Great Black-backed Gull						56	
Least Tern						9	
Caspian Tern					1	3	1
Black Tern						1	
Common Tern	1					18	1
Forster's Tern	5				8	9	48
Royal Tern							5
Black Skimmer							
Rock Pigeon	51	38	147	88	113	134	10
Eurasian Collared Dove							
Mourning Dove	112	46	279	252	176	181	145
Yellow-billed Cuckoo	2	2	16	16	59	13	45
Black-billed Cuckoo				2	1		
Barn Owl			1		2		
Eastern Screech Owl	1			2		4	2
Great Horned Owl		1				2	
Barred Owl	3		10	13	10	4	8
Northern Saw-whet Owl							
Common Nighthawk		2		7	10	4	
Chuck-will's-widow							1
Eastern Whip-poor-will		1					1
Chimney Swift	21	35	76	186	82	73	59
Ruby-throated Hummingbird	40	11	10	19	18	19	12
Belted Kingfisher	7		11	32	5	6	1
Red-headed Woodpecker	8		7	1			7
Red-bellied Woodpecker	21	17	133	265	98	160	65
Yellow-bellied Sapsucker	1						
Downy Woodpecker	37	11	37	94	40	48	19
Hairy Woodpecker	17	2	11	27	8	9	1
Northern Flicker	23	15	28	55	14	20	13
Pileated Woodpecker	10	7	19	51	28	12	18
American Kestrel	4	1	6	4	10	1	
Merlin							1
Peregrine Falcon							
Olive-sided Flycatcher							
Eastern Wood-Pewee	6	3	40	78	54	30	53
Yellow-bellied Flycatcher							
Acadian Flycatcher			27	85	39	18	64
Alder Flycatcher							
Willow Flycatcher			3	5			1
Least Flycatcher	15			1	1	1	



<u>SM</u>	<u>HA</u>	<u>TA</u>	<u>DO</u>	<u>CN</u>	<u>WI</u>	<u>SO</u>	<u>Total</u>
							0
							0
7			1	2			20
251		18	1,206	508	74	72	2,561
27	15	9	23	150		1	584
21	2	14	132	7	1	8	374
							0
							0
			1				1
6	2	3	16			1	84
			1				69
4	36		24				68
	50	4	1	4			1
							42
1		20				1	
3	11	4	81	8		13	190
10		6	4				25
							0
	83	5	36	45			750
							0
108	77	21	122	154	75	3	1,751
22	14	1	6	4	1		201
							3
							3
	6		2	3			20
	2	1	6	12	1		25
2	3		2	17			72
							0
1	1			3			28
3		1	33	1	14		53
1	24		2	2			31
35	36	62	36	140	2		843
12	13	4	6	27	7	1	199
5	12	1		6	1		87
6	2		14				45
49	64	10	21	64	13	2	982
							1
12	24	5	9	21	5	2	364
5	4	1	4	3		1	93
15	9	2	13	17	4	4	232
8	16	2	8	17	6	1	203
	3		1	2			32
1							2
							0
							0
33	28	1	12	40	3	5	386
							0
44	17	2	3	29	1		329
							0
1				1			11
	1						19

(continued)

	<u>GA</u>	<u>AL</u>	<u>FR</u>	<u>HO</u>	<u>PG</u>	<u>AA</u>	<u>CH</u>
Eastern Phoebe	25	20	47	60	44	14	40
Great-crested Flycatcher	5	3	76	98	71	46	47
Eastern Kingbird	14	4	73	109	86	61	35
White-eyed Vireo	2		10	41	63	19	62
Yellow-throated Vireo	1	1	8	13	18	9	36
Blue-headed Vireo	37	2	2	6	3	1	1
Warbling Vireo		3	44	31	8	1	
Philadelphia Vireo							
Red-eyed Vireo	72	42	134	445	255	188	300
Blue Jay	88	96	504	485	120	108	57
American Crow	176	57	214	354	113	178	188
Fish Crow		2	36	52	104	24	3
Common Raven	13	6	3		2		
Horned Lark			32	27	5		1
Purple Martin	15		63	73	63	16	240
Tree Swallow	121	41	86	171	274	126	56
N. Rough-winged Swallow	8	14	27	29	25	28	10
Bank Swallow		3				6	
Cliff Swallow	52	10		55	5	2	
Barn Swallow	217	42	192	341	188	256	277
Carolina Chickadee			77	240	157	154	80
Black-capped Chickadee	88	28					
Tufted Titmouse	41	32	128	251	175	196	198
Red-breasted Nuthatch	9	1		3		4	
White-breasted Nuthatch	30	16	23	59	35	27	5
Brown-headed Nuthatch							1
Brown Creeper	8					1	
House Wren	32	24	93	103	14	37	7
Winter Wren	4					1	
Sedge Wren							
Marsh Wren				1	3	4	4
Carolina Wren	13	33	220	406	231	165	149
Blue-gray Gnatcatcher	7	10	123	285	184	66	100
Golden-crowned Kinglet	16						
Ruby-crowned Kinglet	7	2	4	1	1		
Eastern Bluebird	44	13	93	211	129	169	135
Veery	4		4	39	7	2	1
Gray-cheeked Thrush					2		
Bicknell's Thrush							
Swainson's Thrush			1	36	9	5	
Hermit Thrush	14	2		3		1	
Wood Thrush	11	14	120	261	104	46	93
American Robin	366	260	470	661	212	574	179
Gray Catbird	82	112	357	616	152	111	66
Brown Thrasher	19	11	43	42	30	19	58
Northern Mockingbird	2	13	121	158	90	97	120
European Starling	239	131	956	528	688	529	280
American Pipit			54			1	
Cedar Waxwing	24	2	46	157	218	92	28
Ovenbird	73	14	30	174	100	30	122
Worm-eating Warbler	3		2	13	4	3	18

<u>SM</u>	<u>HA</u>	<u>TA</u>	<u>DO</u>	<u>CN</u>	<u>WI</u>	<u>SO</u>	<u>Total</u>
11	19	2	1	16	2		301
74	25	20	139	139	26	14	783
28	55	5	51	22	9	3	555
38	15	5	35	30	8	10	338
5	18	2		2			113
1	1	1		3			58
	27						114
							0
159	78	7	42	75	12	5	1,814
99	74	12	57	63	13	5	1,781
134	96	17	165	125	27	9	1,853
27	12	6	33	20	9	3	331
							24
8	5	2	12	46	2		140
40	73	64	254	120	76	2	1,099
16	261	19	106	51	18	11	1,357
8	65			4	3		221
	55						64
							124
144	309	46	292	95	48	7	2,454
48	73	15	36	78	15	11	984
							116
63	54	13	96	61	17	3	1,328
		2	3				22
4	8	2	1	11			221
5		4	28		2	3	43
	1						10
6	17	3	33	17	14	19	419
							5
							0
7	7		61			11	98
132	51	15	94	98	44	12	1,663
36	120	4	26	3	1	6	971
							16
	2						17
92	62	23	93	107	8	6	1,185
8	4		1	1			71
1							3
							0
2	2						55
				5			25
83	49	5	22	27	5		840
207	136	58	415	374	122	2	4,036
82	151	16	21	49	12	3	1,830
31	14	8	10	31	6	1	323
118	54	17	79	71	21	2	963
193	319	80	623	302	114	11	4,993
							55
7	49	44		20			687
94	31	6	50	38	9	10	781
27	2	2	15	2	1		92

(continued)

	<u>GA</u>	<u>AL</u>	<u>FR</u>	<u>HO</u>	<u>PG</u>	<u>AA</u>	<u>CH</u>
Louisiana Waterthrush	5	1	14	43	9	5	11
Northern Waterthrush	9		3	10	2	3	1
Golden-winged Warbler		1					
Blue-winged Warbler		1	1	21	2	1	1
Black-and-white Warbler	16	1	9	36	17	18	27
Prothonotary Warbler			4		27	9	24
Tennessee Warbler			1	4			
Orange-crowned Warbler							
Nashville Warbler			1		1	1	
Mourning Warbler		8					
Kentucky Warbler				6	9	3	8
Common Yellowthroat	138	39	111	417	181	58	117
Hooded Warbler	8	1	3	11	26	10	48
American Redstart	51	19	14	90	57	40	31
Cape May Warbler	3	2	3	2		2	
Cerulean Warbler	2	3		2			
Northern Parula	23	2	47	163	138	65	193
Magnolia Warbler	18	2	6	35	12	9	
Bay-breasted Warbler		1	2		2	1	
Blackburnian Warbler	17			8	4	3	1
Yellow Warbler	38	49	81	155	32	19	15
Chestnut-sided Warbler	32	11	13	37	6	8	
Blackpoll Warbler			6	20	11	13	9
Black-throated Blue Warbler	21	2	23	97	51	36	15
Palm Warbler	1		1	5	1		
Pine Warbler				6	18	5	32
Yellow-rumped Warbler	49	17	35	88	85	103	29
Yellow-thoated Warbler				1	6	1	20
Prairie Warbler		1	8	35	53	18	32
Black-throated Green Warbler	42	3	24	38	14	22	2
Canada Warbler	3		1	11	1	3	
Wilson's Warbler			1	1		1	
Yellow-breasted Chat		4	5	19	20	21	32
Eastern Towhee	130	62	66	157	81	51	56
Chipping Sparrow	162	77	277	289	138	205	170
Field Sparrow	29	12	80	96	41	11	24
Vesper Sparrow			2			1	1
Savannah Sparrow	6	5	5	49	40	3	14
Grasshopper Sparrow	3	11	62	53	32	2	25
Henslow's Sparrow	2	5		1			
Nelson's Sparrow							
Saltmarsh Sparrow							
Seaside Sparrow							
Fox Sparrow							
Song Sparrow	116	71	125	178	55	86	31
Lincoln's Sparrow				3			
Swamp Sparrow	23		2	12	11	8	7
White-throated Sparrow	16	1	67	426	141	132	4
White-crowned Sparrow	18	10	8	10	6		
Dark-eyed Junco	8					1	

<u>SM</u>	<u>HA</u>	<u>TA</u>	<u>DO</u>	<u>CN</u>	<u>WI</u>	<u>SO</u>	<u>Total</u>
9	7		4	2			110
4	2	1					35
							1
2	3			1			33
28	23	3	3	7	1		189
	5		9	16	3		97
		1					6
							0
							3
1	1						10
14	5			5			50
115	97	9	157	28	7	51	1,525
16	1						124
50	85	3	3	5	1		449
2							14
	4						11
74	67	3	12	13	1		801
16	9			2			109
1							7
1	1	1					36
10	64	1	2	17		1	484
	5			1			113
16	14						89
44	33	3	1	11			337
	1			2			11
31		11	67	6	6	16	198
64	56	7	5	17			555
9	2	1	1				41
25	33		21	16	4	5	251
23	12	2	2				184
1	1						21
1							4
27	31	4	14	7	1	3	188
56	32	1	24	13	4	11	744
118	120	28	137	133	17	5	1,876
14	25		9	20	3		364
				1			5
6	21		3	1			153
43	43		46	10	2		332
							8
			1			11	0
1			92			84	12
							177
							0
41	27	2	10	8	2	5	757
							3
4	7		8				82
28	80	13	23	5	5		941
	2	1	1				56
							9

(continued)

	GA	AL	FR	HO	PG	AA	CH
Summer Tanager					14	7	24
Scarlet Tanager	38	21	49	125	76	47	86
Northern Cardinal	79	72	438	684	360	459	213
Rose-breasted Grosbeak	77	5	6	16	10	9	
Blue Grosbeak			2	11	26	35	29
Indigo Bunting	25	23	116	166	186	121	226
Painted Bunting							
Dickcissel							
Bobolink	61	12	178	107	70	193	50
Red-winged Blackbird	472	53	614	802	521	584	268
Eastern Meadowlark	30	15	42	13	13	2	12
Rusty Blackbird		18				5	
Common Grackle	169	141	356	249	311	366	368
Boat-tailed Grackle							
Brown-headed Cowbird	25	17	90	238	133	61	97
Orchard Oriole	6	7	30	64	85	27	51
Baltimore Oriole	67	32	94	183	38	19	1
House Finch	17	21	74	91	65	170	27
Purple Finch	19	2		3		1	
Common Redpoll	1						
Pine Siskin	67	41		11		9	8
American Goldfinch	207	122	284	357	156	283	56
Evening Grosbeak							
House Sparrow	59	138	160	196	65	125	89
Scaup sp.							
Peep sp.							
Gull sp.							
Tern sp.							
Empidonax sp.							
Crow sp.			5	155	86		
Thrush sp.							
Blackbird sp.							
Species	136	113	136	152	151	163	140
Total Birds	5,378	2,596	9,735	15,384	10,441	9,974	7,563
Start time			0	5:00			4:00
Finish time			20:00	23:00			23:00
Parties	14	7	13	43	26	23	8
Individuals	47	7	8	59	56	32	16
Hours Driving	51	11	48	37	23	21	35
Miles Driving	435	136	484	305	198	116	351
Hours Walking	59	20	28	188	132	69	27
Miles Walking	40	9	20	131	90	46	31
Stationary Hours	15		1	6	5	31	
Hours Owling			1	2	2		7
Miles Owling			2	2	2		16
Hours on Tractor	2						
Miles on Tractor	20						
Hours on Bicycle							5
Miles on Bicycle							6
Hours on Golf Cart							
Miles on Golf Cart							
Total Hours							
Total Miles							



# MARYLAND CHRISTMAS COUNTS (114<sup>TH</sup> CBC)

DECEMBER 2013 THROUGH JANUARY 2014

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The weather was quite cold on some of the Maryland Christmas Bird Counts during count 114. The average low on the 23 counts was 34.2° F and the average high was 45.8° F. The arctic freeze was more of a phenomenon in January and the three counts held during that time (Annapolis-Gibson Island, Bowie, and Catoctin Mountain) had an average low of 23.7° F and high of 36.0° F. The coldest of all the counts in Maryland was Catoctin Mountain with a low temperature of 12° F and the warmest was Point Lookout with a high temperature of 68° F. The snow depth was at least 2 inches during three Maryland counts: Oakland (maximum 7.5 inches), Allegany (maximum 4 inches), and Catoctin Mountain (maximum 6 inches) with the Annapolis-Gibson Island areas having 3 inches in some places but no snow in other places. Minimum depth was 0-2 inches and maximum depth was 0-7.5 inches.

There were a number of high counts for **Double-crested Cormorants** (six different CBCs in MD had all-time highs). Four counts had high counts for **Gadwall**. Six areas had highs for **Wild Turkey**. Four areas had high counts for **Bald Eagles**, four had highs for **Turkey Vultures** and one for **Black Vultures** (among other count highs). **Northern Bobwhite** continue on their decline and were only found at two counts, both on the Eastern Shore. **Golden Eagles** were found at three counts on the Eastern Shore and one on the Western Shore. **Palm Warblers** were found at several counts, as were **Barn Owls**. Single **Ruffed Grouse**, **Yellow-breasted Chat**, **Clay-colored Sparrow**, and **Lincoln's Sparrow** observations were recorded at Oakland, Annapolis-Gibson Island, Ocean City, and Denton counts, respectively.



Observations of several species are worth highlighting including **Trumpeter Swan**, **Barrow's Goldeneye**, **Western Grebe**, **Snowy Owl**, **Ruby-throated Hummingbird**, **Western Kingbird**, **Painted Bunting**, **Dickcissel**, and **Yellow-headed Blackbird**.

The **Trumpeter Swan** was seen by Dr. Michael Braun and Terri Rafiq and soon after by Lynn Davidson who photographed it and documented it for the MD/DC Bird Records Committee.

The **Barrow's Goldeneye** was seen and photographed on the Point Lookout Count by Terry Jordan and Tyler Bell at the Elms Environmental Education Center.

Only two **Red-necked Grebes** were found (both on the Jug Bay count) whereas many would show up later in the winter season. These were found by the same observers (Gene Scarpulla and Marcia Watson) to find the count's first **Western Grebe**. The grebe was well described in a report to the MD/DC Records Committee. (Editor's note: The Records Committee accepted this report in the Western/Clark's Grebe complex, *Aechmophorus* genus.)



There was a lot of interest in this year's invasion of **Snowy Owls** and we had two (one at the Ocean City count and the other at Chesterville) counted on MD Christmas Counts.

Compared to annual or almost annual occurrences of **Rufous Hummingbirds**, the wintering **Ruby-throated Hummingbird** found on the Annapolis-Gibson Island count was very unusual.

A **Western Kingbird** was found on the Ocean City count and they also had their first **Western Tanager**.

A **Painted Bunting** was seen by Thomas Ostrowski, then later by Jeff Shenot, and relocated on count day by Taylor Mclean for the Jug Bay count at the Merkle Wildlife Sanctuary.

A **Dickcissel** that had been making use of the bird feeders at Sean McCandless' house made an appearance on count day for Elkton.

Some other interesting birds included two **Osprey** on the Annapolis-Gibson Island Count and **Spotted Sandpiper** on the Annapolis-Gibson Island and Jug Bay counts. **Rufous Hummingbirds** were on each of those counts as well. There was a **Sandhill Crane** on the Jug Bay Count (count week), one on the Lower Kent County Count, and two each on both the Seneca and Bowie Counts.

### TABLE LEGEND

**Bolded species name** = unusual for the count

**Bolded data value** = high count record

cw = observed during Count Week

TABLE 1. INLAND CHRISTMAS COUNTS 2013-2014

	<u>OAKLAND</u>	<u>ALLEGANY</u>	<u>WASH. COUNTY</u>	<u>CATOCTIN</u>	<u>SUGAR- LOAF</u>
DATE	14-Dec	14-Dec	28-Dec	5-Jan	29-Dec
TEMPERATURE (° F.)	27-32	30-32	30-52	12-27	39-44
WIND (mph)	5-15	0-2			0-5
Snow Goose	2				
Snow Goose (blue form)					
Ross's Goose					
Cackling Goose					
Canada Goose	602	496	1,110	281	5,078
Mute Swan			3		
Tundra Swan	4				
Wood Duck			4		
Gadwall	34		2		47
American Wigeon					
American Black Duck	51	1	6		71
Mallard	618	104	318	19	176
Am. Black Duck x Mallard					
Northern Shoveler			1		
Northern Pintail	6				
Green-winged Teal					3
Canvasback					
Redhead	4				
Ring-necked Duck	1				13
Greater Scaup					
Lesser Scaup	0				
scaup sp.					
Long-tailed Duck					
Bufflehead	4	2			8
Common Goldeneye					
Hooded Merganser	126	7	5		34
Common Merganser	12		25	7	31
Red-breasted Merganser					1
Ruddy Duck	34				
Northern Bobwhite					
Ruffed Grouse	1				
Wild Turkey	5		39	1	16
Red-throated Loon			1		
Common Loon	1				
Pied-billed Grebe	4	2			9
Horned Grebe	3				
Double-crested Cormorant					1
Great Blue Heron (blue form)	2	5	17	6	24
Black-crowned Night-Heron					

TABLE 1. INLAND CHRISTMAS COUNTS 2013-2014(CONT'D.)

<u>SENECA</u>	<u>TRIA- DELPHIA</u>	<u>ROCK RUN</u>	<u>BOWIE</u>	<u>ELKTON</u>	<u>CHESTER- VILLE</u>
15-Dec	14-Dec	28-Dec	1-Jan	15-Dec	22-Dec
32-47 0-20	30-37 0-9		28-43	32-43 1-20	63-65 5-25
2		13		651 5	23,730 43 4 8
3,680	1 11,641	2 16,482	3 12,401	4,675	26,184
1		2		6	1
8	7	3	5	81	597
58		20	12		8
75		6	47	326	487
			23		210
36	24	116	51	67	754
637	104	683	679	528	1,573
20			1		1
			7		17
			3		4
			140		
1		15		2	8
5				19	
484		6	358	110	329
		3			
6		22	6	14	21
1		19			
1					
293	6	104	3	18	8
1		63			3
131	98	174	156	155	110
52	1,200	283	3	349	139
		1		18	
16		89	45	260	2
					32
30	2	8	42		67
2	1	1			
12	18	20	12		2
2	2			1	
9		21		11	9
62	18	204	22	38	47
		15			

(continued)

TABLE 1. INLAND CHRISTMAS COUNTS 2013-2014 (CONT'D.)

	<u>OAKLAND</u>	<u>ALLEGANY</u>	<u>WASH. COUNTY</u>	<u>CATOCTIN</u>	<u>SUGAR- LOAF</u>
Black Vulture			31	15	3
Turkey Vulture			124	3	19
Bald Eagle	2		1	3	3
Northern Harrier		1			1
Sharp-shinned Hawk			1	2	0
Cooper's Hawk	1	4	1	4	4
Accipiter sp.					1
Red-shouldered Hawk			8	18	40
Red-tailed Hawk	8	1	40	43	36
Rough-legged Hawk	2		1		
Buteo sp.					1
Virginia Rail					
American Coot	10				25
<b>Sandhill Crane</b>					
Killdeer				7	6
Wilson's Snipe				1	1
American Woodcock					
Bonaparte's Gull					
Ring-billed Gull	7	1			462
Herring Gull					
Great Black-backed Gull					
gull sp.					
Rock Pigeon	75	86	255	357	181
Mourning Dove	35	6	472	494	656
Barn Owl				1	
Eastern Screech-Owl	2	1	2		1
Great Horned Owl	1			2	2
<b>Snowy Owl</b>					
Barred Owl	1		1	2	1
Short-eared Owl					
Belted Kingfisher	1	2	15	4	16
Red-headed Woodpecker	1			2	
Red-bellied Woodpecker	17	7	85	82	81
Yellow-bellied Sapsucker		2	12	7	14
Downy Woodpecker	42	10	69	55	84
Hairy Woodpecker	24	3	20	5	12
Northern Flicker	1	3	18	32	66
Pileated Woodpecker	10	3	32	12	25
American Kestrel	3	1	8	10	8
Merlin					
Peregrine Falcon			1		
falcon sp.					
Eastern Phoebe			1		2
Blue Jay	82	6	16	98	81

TABLE 1. INLAND CHRISTMAS COUNTS 2013-2014 (CONT'D.)

<u>SENECA</u>	<u>TRIA- DELPHIA</u>	<u>ROCK RUN</u>	<u>BOWIE</u>	<u>ELKTON</u>	<u>CHESTER- VILLE</u>
387	78	277	191	80	111
482	94	111	160	171	462
16	27	137	44	63	88
9	8	6	2	2	24
12	10	5	14	3	14
18	12	7	17	1	11
5			2		
90	56	19	57	6	5
52	32	26	58	16	44
					1
12		452	27	600	
2			2		
21	1	42	77		6
1	3	2	15		
			2		7
					1
391	114	7,309	366	1,011	248
1		460	11	319	1
1		587		311	5
50		330	17	166	
483	562	132	1,054	30	271
342	539	108	830	50	377
	1				cw
1	4	4	6	3	9
	6	6	3		4
					1
8	4	1	14		8
	2				
38	24	22	33	9	4
17			2		
316	198	69	378	59	113
86	21	18	33	4	19
346	164	71	279	33	73
49	32	13	50	3	20
206	127	67	324	35	101
103	47	22	70	12	7
4	4	5	8	3	13
1		3	1		
1		2			1
1					
6	2	1	14		1
412	334	99	746	116	147

(continued)

TABLE 1. INLAND CHRISTMAS COUNTS 2013-2014 (CONT'D.)

	<u>OAKLAND</u>	<u>ALLEGANY</u>	<u>WASH. COUNTY</u>	<u>CATOCTIN</u>	<u>SUGAR- LOAF</u>
American Crow	421	22	431	137	775
Fish Crow					13
crow sp.					477
Common Raven	7	2	5	2	2
Horned Lark	60			301	418
Carolina Chickadee			278	82	331
Black-capped Chickadee	184	11			
Tufted Titmouse	87	19	132	82	162
Red-breasted Nuthatch	3				
White-breasted Nuthatch	61	5	66	40	64
Brown Creeper	2	2	13	7	7
House Wren					1
Winter Wren		4	14	4	16
Carolina Wren	17	39	147	79	169
Golden-crowned Kinglet	13	1	74	7	37
Ruby-crowned Kinglet		1		1	3
Eastern Bluebird		10	302	36	241
Hermit Thrush					4
American Robin	4	1	127	11	67
Gray Catbird			1		
Brown Thrasher					
Northern Mockingbird		14	67	59	107
European Starling	545	72	2,886	1,401	3,678
American Pipit	1		13		35
Cedar Waxwing			23	33	117
Lapland Longspur			10		
Common Yellowthroat					1
Palm Warbler					
(Western) Palm Warbler					
(Yellow) Palm Warbler					
Pine Warbler					
Yellow-rumped (Myrtle) Warbler		5	43	8	3
Eastern Towhee		3	3	4	2
American Tree Sparrow	6		2		4
Chipping Sparrow		1	2		2
Field Sparrow				1	20
Vesper Sparrow					
Savannah Sparrow				4	
Fox Sparrow			1		1
Song Sparrow	14	27	47	102	289
Swamp Sparrow	6	1		5	37
White-throated Sparrow	7	72	191	262	714
White-crowned Sparrow			37	53	99
Dark-eyed (Slate-colored) Junco	199	59	334	693	960
Northern Cardinal	63	45	202	236	368

TABLE 1. INLAND CHRISTMAS COUNTS 2013-2014 (CONT'D.)

<u>SENECA</u>	<u>TRIA- DELPHIA</u>	<u>ROCK RUN</u>	<u>BOWIE</u>	<u>ELKTON</u>	<u>CHESTER- VILLE</u>
2,503	1,052	288	2,112	403	101
<b>698</b>	209	30	459	114	1
2,431	1,154	4	777	31	2
5	<b>6</b>				
35	69	57	35	1	329
938	474	241	838	96	200
586	294	107	604	92	112
1			1		
304	153	66	245	24	31
73	11	19	29	3	<b>23</b>
60	25	17	92	3	13
656	327	114	646	113	200
<b>372</b>	93	107	142	23	<b>76</b>
90	5	13	11	5	11
614	355	154	398	127	119
31	18	12	80	13	5
1,921	1,743	130	2,735	227	436
3	3	2	5	3	<b>6</b>
3	3	1	12	<b>4</b>	3
144	113	62	217	78	113
3,981	4,777	2,611	4,808	1,515	2,732
249	10	76	149	<b>47</b>	116
307	157	47	48	5	36
					1
	<b>8</b>		1		
			2		
					1
					4
		4	1		
251	18	12	67	30	58
33	60	43	189	13	33
1	7	2	7		2
27	19	2	<b>57</b>	7	
66	69	28	115	26	77
		1			
13	93	62	56	3	67
6	17	1	18	3	9
425	695	252	855	146	601
34	26	14	238	5	41
1,376	1,674	471	2,997	538	1,492
11	30	3	8	1	100
1,080	1,688	438	2,215	784	993
820	612	186	963	147	439

(continued)

TABLE 1. INLAND CHRISTMAS COUNTS 2013-2014 (CONT'D.)

	<u>OAKLAND</u>	<u>ALLEGANY</u>	<u>WASH. COUNTY</u>	<u>CATOCTIN</u>	<u>SUGAR- LOAF</u>
<b>Dickcissel</b>					
Red-winged Blackbird	3		5	14	27
Eastern Meadowlark	5		7	30	
Rusty Blackbird	2				
Common Grackle			26	2	540
 Brown-headed Cowbird	 3		 1	 438	 4
blackbird sp.					39
House Finch	16	7	126	56	92
Purple Finch	1				
Pine Siskin	2		1		
 American Goldfinch	 82	 11	 77	 51	 101
House Sparrow	39	18	248	302	130
 <b>Total species</b>	 <b>67</b>	 <b>50</b>	 <b>69</b>	 <b>62</b>	 <b>79</b>
Participants	12	3	25	13	50





TABLE 1. INLAND CHRISTMAS COUNTS 2013-2014 (CONT'D.)

<u>SENECA</u>	<u>TRIA- DELPHIA</u>	<u>ROCK RUN</u>	<u>BOWIE</u>	<u>ELKTON</u>	<u>CHESTER- VILLE</u>
647	60	1,713	794	1 937	17,404
5	12		20	2	5
10	1		14	4	
116	47	45	803	2,415	5,611
604	43	38	521	433	279
174	31	1,000		330	
332	115	64	197	56	60
9					
265	287	46	347	28	51
190	120	160	421	220	184
101	84	97	97	84	100
98	49	49	88	21	23



(continued)

TABLE 2. TIDEWATER CHRISTMAS COUNTS 2013-2014

	<u>ANNAPOLIS GIBSON IS</u>	<u>PATUXENT RIVER</u>	<u>JUG BAY</u>	<u>PORT TOBACCO</u>	<u>POINT LOOKOUT</u>
DATE	5-Jan	29-Dec	15-Dec	15-Dec	22-Dec
TEMPERATURE (° F.)	31–38	40–45	32–46	30–50	60–68
WIND (mph)	0–15	0–5	0–25	0–15	5–25
Snow Goose					2
Snow Goose (blue form)					
Ross’s Goose					
Brant					
Cackling Goose	2	1	4		
Canada Goose	7,526	6,911	14,084	4,552	7,753
Snow Goose x Canada Goose					
Mute Swan	4		1	2	
Trumpeter Swan	1				
Tundra Swan	385	44	110	47	99
Wood Duck	1	4	9		
Gadwall	31	210	142	91	
Eurasian Wigeon					
American Wigeon	23		5	2	
American Black Duck	122	3	657	57	6
Mallard	934	241	991	263	53
Am. Black Duck x Mallard					
Blue-winged Teal					
Northern Shoveler			54		
Northern Pintail			6	4	
Green-winged Teal				32	
Canvasback	2,749	6	50		3
Redhead	1		30		
Ring-necked Duck	17	68	55	22	
Greater Scaup	5,930	59	10,375		6
Lesser Scaup	1,899	20	5	36	97
scaup sp.	1,623		6,511		4
Common Eider					
Harlequin Duck					
Surf Scoter	533	6	290		
White-winged Scoter	5		6		10
Black Scoter	16		51		95
scoter sp.	501				25
Long-tailed Duck	85	127	106	1	74
Bufflehead	1,208	624	948	293	440
Common Goldeneye	114	88	61	1	1,914
Barrow’s Goldeneye					1
Hooded Merganser	164	36	25	14	3
Common Merganser	6	7	67	6	
Red-breasted Merganser	17	27			16

TABLE 2. TIDEWATER CHRISTMAS COUNTS 2013-2014 (CONT'D.)

<u>LOWER KENT</u>	<u>DENTON</u>	<u>ST. MICHAELS</u>	<u>SO. DORCH. CO.</u>	<u>CRISFIELD</u>	<u>SALISBURY</u>	<u>OCEAN CITY</u>
15-Dec	14-Dec	15-Dec	29-Dec	27-Dec	15-Dec	28-Dec
35-48 2-20	33-41 6-7	39-50 0-18	40-52 10-25	23-46 0-5	37-45 10-15	30-57 0-15
1,751 3	3,165 10	1,082	1,013 81		35	20,825 156 3 438 2
8	1		1			
63,304 2 1	4,563	33,749 2	9,831	2,018	7,975	16,752
238	119	196	716	254	30	1,029
7 93	13 1		7 143	6 9	2 5 1	38 282 3
70 1,107	1 7	47	70 1,441	19 423	1 39	531 844
15,146 1	244 4	346	4,508	95	146	4,205 1
326 249	1	22	50 650	1	9	200 84
203 5,859 4	3	14	438 615	25 12,435 15,000	1	321 467 28
289 342	56	1	10 10	4		1,127
9,618 215	19	50 184	7 240	4 550	6	118 4 11 3 511
13		335	2	5,812		
2 1		2 3 6		5		22 101 2,225
54 372	2	178 939	280	27 3,179	17	39 2,294
138	2	73	18	38	1	2
18 28 16	4 4	12 6	93 9 9	76 37	24 4	202 139

(continued)

TABLE 2. TIDEWATER CHRISTMAS COUNTS 2013-2014 (CONT'D.)

	<u>ANNAPOLIS GIBSON IS</u>	<u>PATUXENT RIVER</u>	<u>JUG BAY</u>	<u>PORT TOBACCO</u>	<u>POINT LOOKOUT</u>
merganser sp.					
Ruddy Duck	5,429	915	116	2,527	610
duck sp.			325		
Northern Bobwhite					
Ring-necked Pheasant					
Wild Turkey			73		
Red-throated Loon	1				
Common Loon	3	48	7	4	27
Pied-billed Grebe	15		3	2	
Horned Grebe	21	16	3		38
Red-necked Grebe			2		
Western Grebe			1		
Northern Gannet					2
Double-crested Cormorant	2,228	122	263	1,734	177
Great Cormorant	3				4
cormorant sp.	12				
American White Pelican					
Brown Pelican		3	1		78
American Bittern					
Great Blue Heron (blue form)	51	13	50	21	8
Great Egret					
Black-crowned Night-Heron					
Black Vulture	111	140	383	127	184
Turkey Vulture	152	231	193	321	165
Osprey	2				
Bald Eagle	27	18	77	67	14
Northern Harrier			14	6	1
Sharp-shinned Hawk	7	7	5	3	2
Cooper's Hawk	13	2	11	3	
accipiter sp.					
Red-shouldered Hawk	50	14	35	7	2
Red-tailed Hawk	33	7	37	25	3
Rough-legged Hawk				1	
Golden Eagle			1		
Clapper Rail					
King Rail					
Clapper Rail/King Rail					
Virginia Rail	2				
Sora					
large rail sp.					

TABLE 2. TIDEWATER CHRISTMAS COUNTS 2013-2014 (CONT'D.)

<u>LOWER KENT</u>	<u>DENTON</u>	<u>ST. MICHAELS</u>	<u>SO. DORCH. CO.</u>	<u>CRISFIELD</u>	<u>SALISBURY</u>	<u>OCEAN CITY</u>
1,784	25		1 84	8,584 10	150	492
4	4					
14	39	34	33	21	41	50
1				3	2	1,041
8		22	1	16	1	144
3	1		3	5	4	13
2		18	16	23	1	226
		2				8,000
241	7		2	6	70	116
1		57	69			1
76	14	28	64	1 95	30	105
1						1
				11		29
120	56	157	31	100	104	259
474	159	684	270	401	716	735
185	34		77	86	87	79
17	10		23	37	13	18
13	1	10	3	4	13	19
13	7	5	4	5	13	14
			1		2	3
9	9	1	4	7	5	12
72	21	40	12	30	34	44
3			1	1		
			5	29	1	8
				2		
10			12	61	14	1
				1		12
			3	88		

(continued)

TABLE 2. TIDEWATER CHRISTMAS COUNTS 2013-2014 (CONT'D.)

	<u>ANNAPOLIS GIBSON IS</u>	<u>PATUXENT RIVER</u>	<u>JUG BAY</u>	<u>PORT TOBACCO</u>	<u>POINT LOOKOUT</u>
American Coot	9	9	4	1	
<b>Sandhill Crane</b>			cw		
American Oystercatcher					
Black-bellied Plover					
Killdeer	26	35	63	45	2
<b>Spotted Sandpiper</b>	1			1	
Greater Yellowlegs					
Lesser Yellowlegs					
yellowlegs sp.					
Ruddy Turnstone					
Red Knot					
Sanderling		9			1
Dunlin			2		
Purple Sandpiper			3		
Least Sandpiper					
peep sp.					
Wilson's Snipe		1	70		
American Woodcock	3		2		3
Bonaparte's Gull	14	1	0		60
Laughing Gull				2	
Ring-billed Gull	1,193	857	1,667	347	284
Herring Gull	221	339	608	100	63
Lesser Black-backed Gull	2				
Great Black-backed Gull	129	60	89	7	93
gull sp.	44		619	38	
Forster's Tern		1			
Rock Pigeon	168	8	94	4	
Mourning Dove	469	350	427	136	298
Barn Owl			1		
Eastern Screech-Owl	14		5	13	
Great Horned Owl	2	4	8	2	1
<b>Snowy Owl</b>					
Barred Owl	3	1	7		
Short-eared Owl		2			
<b>Ruby-throated Hummingbird</b>	1				
<b>Rufous Hummingbird</b>	1		1		
Belted Kingfisher	36	10	13	20	9
Red-headed Woodpecker			2	16	
Red-bellied Woodpecker	322	31	187	91	12
Yellow-bellied Sapsucker	67	6	39	19	2
Downy Woodpecker	262	21	118	44	11
Hairy Woodpecker	45	2	26	15	1
Northern Flicker	128	33	142	67	16
Pileated Woodpecker	46	5	40	14	3
American Kestrel	1	8	5	5	4

TABLE 2. TIDEWATER CHRISTMAS COUNTS 2013-2014 (CONT'D.)

<u>LOWER KENT</u>	<u>DENTON</u>	<u>ST. MICHAELS</u>	<u>SO. DORCH. CO.</u>	<u>CRISFIELD</u>	<u>SALISBURY</u>	<u>OCEAN CITY</u>
3		1		1		67
1						26
						213
19	61	70	7	50	72	325
			62	56		33
			4	10		1
				2		26
						1
						174
		83	544	235	15	2,950
						25
						7
	1	102				
1			37	9	2	30
6		1	2		2	11
						13
						1
3,005	542		875	2,097	1,167	4,180
221	23	806	72	2,767	734	1,164
1					1	
135	3	309	5	38	65	110
	89				60	4
			1			14
52	166	31	2	138	109	583
218	414	127	162	204	312	428
25	18	57	6	17	22	43
34	5	35	9	13	28	20
						1
4	9	2	1	2	1	2
		1	3	1		1
17	9	17	21	23	22	38
1				1		
150	49	68	25	51	50	64
13	8	14	3	16	12	12
68	34	49	14	31	51	74
31	13	10	6	5	6	26
124	76	90	33	68	85	199
14	26	17	9	24	9	23
5	14	4	4	11	12	12

(continued)

TABLE 2. TIDEWATER CHRISTMAS COUNTS 2013-2014 (CONT'D.)

	<u>ANNAPOLIS GIBSON IS</u>	<u>PATUXENT RIVER</u>	<u>JUG BAY</u>	<u>PORT TOBACCO</u>	<u>POINT LOOKOUT</u>
Merlin	1		1		
Peregrine Falcon	5				
Eastern Phoebe	4	1	13	2	
<b>Western Kingbird</b>					
Blue Jay	716	46	312	158	24
American Crow	700	337	1,154	436	185
Fish Crow	37	9	159		
crow sp.	93		183		
Horned Lark	6	50	22	27	
Tree Swallow					
Carolina Chickadee	871	193	342	128	98
Tufted Titmouse	739	106	393	160	34
Red-breasted Nuthatch			1		
White-breasted Nuthatch	190	12		43	6
Brown-headed Nuthatch		7			50
Brown Creeper	10	2	9	3	1
House Wren		1			2
Winter Wren	41	1	31	7	
Sedge Wren					
Marsh Wren					
Carolina Wren	548	95	317	129	64
Golden-crowned Kinglet	31	15	63	17	16
Ruby-crowned Kinglet	15	3	17	9	15
Eastern Bluebird	314	128	318	201	118
Hermit Thrush	192	9	67	44	7
American Robin	8,202	963	1,066	745	241
Gray Catbird	16	1	9	1	1
Brown Thrasher	21	2	26	6	2
Northern Mockingbird	212	47	106	62	46
European Starling	3,435	128		1,227	1,789
American Pipit	16			10	10
Cedar Waxwing	827	694	242	214	88
Snow Bunting					
Orange-crowned Warbler					
Common Yellowthroat					
Palm Warbler					
(Western) Palm Warbler					
(Yellow) Palm Warbler					
Pine Warbler					
Yellow-rumped (Myrtle) Warbler	74	48	112	155	76
Yellow-breasted Chat	1				
Eastern Towhee	132	4	80	22	4
American Tree Sparrow			5	1	
Chipping Sparrow	4	20	2	43	70
Clay-colored Sparrow					



TABLE 2. TIDEWATER CHRISTMAS COUNTS 2013-2014 (CONT'D.)

<u>LOWER KENT</u>	<u>DENTON</u>	<u>ST. MICHAELS</u>	<u>SO. DORCH. CO.</u>	<u>CRISFIELD</u>	<u>SALISBURY</u>	<u>OCEAN CITY</u>
1		2	2		5	6
2			1			3
8	2		3	14	14	28
						1
341	102	274	24	55	178	113
142	134	627	191	709	778	384
1	10	27	334	467	230	6
7		44	970	530	42	27
607	90		12	1	19	129
			9	156		
262	158	182	59	165	209	346
184	87	98	12	78	136	171
1		1				1
23	15	12	1		2	
11		21	35	49	19	63
12	17	9	7	16	6	20
2			1	1		5
21	16	4	10	16	16	56
				2	1	4
5			11	17	3	8
305	95	134	42	153	132	317
68	83	31	29	57	60	106
20	15	14	11	12	12	17
271	148	457	144	162	254	239
15	46	23	8	79	64	63
198	1,977		1,513	659	2,542	5,955
8	1	6	3	8	7	51
21	7	7	6	19	13	25
180	56	153	18	54	104	158
4,318	2,224		1,683	2,436	3,013	5,516
405	359	51	2	2	2	106
114	66	445	14	41	27	80
1						
	1		1			2
		1	2			2
				11		2
						5
						4
	2		9	3	4	9
131	24	681	144	453	118	2,129
107	9	27	4	30	50	39
						1
12	10	18	15	113	65	225
						1

(continued)

TABLE 2. TIDEWATER CHRISTMAS COUNTS 2013-2014 (CONT'D.)

	<u>ANNAPOLIS GIBSON IS</u>	<u>PATUXENT RIVER</u>	<u>JUG BAY</u>	<u>PORT TOBACCO</u>	<u>POINT LOOKOUT</u>
Field Sparrow	56	3	29	9	
Vesper Sparrow					
Savannah Sparrow		26	16	34	2
Savannah (Ipswich) Sparrow					
Grasshopper Sparrow					
Nelson's Sparrow					
Saltmarsh Sparrow					
sharp-tailed sparrow sp.					
Seaside Sparrow					
Fox Sparrow	3	2	11		
Song Sparrow	548	101	377	232	35
Lincoln's Sparrow					
Swamp Sparrow	76	10	89	62	1
White-throated Sparrow	2,210	539	1,157	423	112
White-crowned Sparrow	5		1	7	1
Dark-eyed (Slate-colored) Junco	2,515	526	871	616	167
<b>Western Tanager</b>					
Northern Cardinal	1,078	181	651	160	95
<b>Painted Bunting</b>			1		
Red-winged Blackbird	1,011	213	8,374	3,204	108
Eastern Meadowlark		36		35	44
<b>Yellow-headed Blackbird</b>					
Rusty Blackbird			24		
Common Grackle	1,328	500	88	804	5
Boat-tailed Grackle					
Brown-headed Cowbird	96	51	119	133	3
blackbird sp.	127		80		
House Finch	234	60	80	47	62
Purple Finch	3		1		
Pine Siskin	5				
American Goldfinch	283	44	248	113	27
House Sparrow	476	32	195	52	39
<b>Total species</b>	<b>109</b>	<b>94</b>	<b>115</b>	<b>91</b>	<b>84</b>
Participants	87	22	45	17	15

TABLE 2. TIDEWATER CHRISTMAS COUNTS 2013-2014 (CONT'D.)

<u>LOWER KENT</u>	<u>DENTON</u>	<u>ST. MICHAELS</u>	<u>SO. DORCH. CO.</u>	<u>CRISFIELD</u>	<u>SALISBURY</u>	<u>OCEAN CITY</u>
118	87	14	19	3	30	73
					1	3
113	24	10	31	55	20	211
						11
						2
				2		1
						3
				2		2
21	1	4	2	19	12	62
635	179	164	251	396	334	675
	1					
154	19	18	301	325	92	238
1,772	1,335	695	164	345	547	1,381
51	1	2	4			1
784	1,180	804	29	165	437	528
						1
598	166	265	64	175	235	402
15,780	1,063		20,428	42,647	8,347	24,300
21	3	3	44	76	27	355
						1
14		1	1	263	1	16
40,306	1,157	32	21,502	6,544	11,710	45,875
				253		56
65	351	7	109	153	1,015	335
					8,300	11,000
66	24	91	19	17	26	89
5						
127	57	225	46	113	84	287
130	187	134	20	82	36	252
121	92	98	118	116	102	148
28	17	45	10	19	32	54

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